

Application No. 09/592,404

REMARKS

The Applicant and the undersigned thank Examiner Laforgia for his careful review of this Application. Consideration of the present application is respectfully requested in light of the above amendments to the claims and in view of the following remarks. Claims 1-10 have been rejected and Claim 10 has been objected to. Applicant has amended Claims 1, 3-8, and 10. Applicant has canceled Claim 9. Applicant has added Claims 11-47. Upon entry of the amendments, Claims 1-8 and 10-47 are pending in the subject application with none having been allowed. The independent claims for this application are Claims 1, 7, 10, and 37.

I. Claim Rejections under 35 U.S.C. § 102(e)

The Examiner rejected Claims 7 and 8 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,185,689 to Todd, Sr. et al. ("*Todd*"). The Applicant respectfully offers the following remarks to traverse these pending rejections.

A. The Invention of Independent Claim 7, as Amended is Distinguishable from the *Todd* Patent

The rejection of independent Claim 7, as amended, is respectfully traversed. It is respectfully submitted that *Todd* fails to teach or suggest all of the recitations enumerated in amended Claim 7. Specifically, *Todd* does not teach or suggest a method for auditing security of a remote computer system comprising the step of determining which of a plurality of scanning machines is available to perform the security audit scan.

1. *Todd* Does Not Teach or Suggest the Step of Determining Which of a Plurality of Scanning Machines is Available

Todd fails to teach, suggest, or make obvious determining which of the plurality of scanning machines is available to perform the security audit scan as set out in amended Claim 7. Scanning machine availability is determined by examining a schedule for each of the scanning machines. An examination of the schedules allows for the identification of certain scanning machines that are conducting a security audit scan or are scheduled to conduct a security audit scan. The available scanning machines include all of the scanning machines except for the certain scanning machines.

The Examiner admits that *Todd* does not teach the step of evaluating which of a plurality of scanning machines is available to perform the security audit scan because *Todd* teaches only one scanning machine. *Office Action* at 7 (Analysis of original Claim 9). However, the

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Examiner states that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to duplicate the single scanning machine of *Todd*." *Id.* The Examiner further states that it would be "obvious to choose one of the plurality of scanning machines based on location or services provided, such as a variety of attacks offered on [the scanning machine]." *Id.* The step of determining which of a plurality of scanning machines is available to perform the security audit scan in Claim 7, as amended, does not satisfy either of the reasons set forth by the Examiner for being obvious to one of ordinary skill in the art at the time of the invention.

Amended Claim 7 is not an apparatus claim that merely duplicates the use of a single part. Instead, it is a method claim that, in part, determines which of a plurality of scanning machines is available to perform the security audit scan on a remote computer system. Each scanning machine, of amended Claim 7, is capable of conducting a plurality of security assessments. Since each scanning machine of amended Claim 7 is capable of conducting a plurality of security assessments, it would be unnecessary to select a scanning machine based on the security assessments that a particular scanning machine provides. Further, the availability of scanning machines is determined by identifying certain scanning machines that are conducting a security audit scan or are scheduled to conduct another security audit scan. The available scanning machines comprise all of the scanning machines except for the certain scanning machines.

In view of the foregoing, Applicant respectfully submits that the invention of amended Claim 7 does not determine availability based on distance to the remote computer system from the scanning machine. Therefore, *Todd* fails to teach, suggest, or make obvious a method for determining which of a plurality of scanning machines is available to perform the security audit scan, as set out in amended Claim 7. Accordingly, reconsideration and withdrawal of this rejection of amended Claim 7 is respectfully requested.

II. Claim Rejections Under 35 U.S.C. § 103(a)

The Examiner rejected Claims 1-6 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,205,552 to Fudge ("*Fudge*") in view of *Todd*. The Examiner rejected Claim 9 under 35 U.S.C. § 103(a) as being unpatentable over *Todd*. The Examiner rejected Claim 10 under 35 U.S.C. § 103(a) as being unpatentable over *Fudge*. The Applicant respectfully offers the following remarks to traverse these pending rejections.

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A. Independent Claim 1, as Amended, is Distinguishable from *Fudge* in view of *Todd*

The rejection of independent Claim 1 is respectfully traversed. It is respectfully submitted that *Fudge* in view of *Todd* fails to teach or suggest all of the recitations in amended Claim 1. The *Fudge/Todd* combination fails to teach or suggest a central computer programmed to evaluate a database to determine if the security audit scan is currently scheduled to be run on one of the scanning machines, as set out in amended Claim 1. The *Fudge/Todd* combination also fails to teach or suggest a central computer programmed to determine which of the plurality of scanning machines is available to perform the security audit scan, as recited in amended Claim 1.

1. The *Fudge/Todd* Combination Fails to Teach or Suggest a Central Computer Programmed to Evaluate a Database to Determine if a Security Audit Scan is Scheduled

The *Fudge/Todd* combination fails to teach or suggest an apparatus for auditing security of a remote computer, comprising a central computer programmed to evaluate a database to determine if a security audit scan is currently scheduled to be run on one of the scanning machines. The central computer has a memory that is configured as a database server and a scheduler. The central computer is in communication with the plurality of scanning machines.

The Examiner states that "*Fudge* does explicitly disclose evaluating a database to determine if a security audit is scheduled to be run." *Office Action* at 4. To support his statement, the Examiner relies on column 3, lines 56-59 of *Fudge*. This portion of *Fudge* describes a processor having a real-time clock so that entries in the run log and scan log have the proper time of entry. The run log contains the results of the vulnerability scan, while the scan log contains address profiles that are scanned by scanning machine. *Fudge*, col. 3:51-59.

Next, the Examiner relies on a portion of *Fudge* that states "the mere presence of a new profile or a separate notification mechanism can be used to trigger the vulnerability scanner to act upon a profile in [the] scan log." *Fudge*, col. 4:35-42. Finally, the Examiner relies on a portion of *Fudge* stating that "a periodic report summarizing the progress and results of scanning network ... can be issued on an hourly, daily, weekly, or monthly schedule." *Fudge*, col. 4:61-67 (emphasis added). The Examiner also states that one of ordinary skill would use a database to trigger a vulnerability scan based on the last time a vulnerability scan was completed. *Office Action* at 5.

Applicant respectfully submits that the Examiner's arguments fail to make out a *prima facie* case that the invention of Claim 1 is unpatentable over the *Fudge/Todd* combination.

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While *Fudge* teaches the use of a real-time clock, *Fudge* discloses use of this clock only to record the time results during a security audit scan and during an address filtering process. *Fudge* does not teach or suggest evaluating a database to determine if the security audit scan is currently scheduled to be run on one of the scanning machines.

With regard to the notification mechanism of *Fudge*, it only notifies a user or the scanning system that a new address profile has been introduced into the remote computer system. *Fudge* does not teach or suggest using a notification mechanism to evaluate the database to determine if the security audit scan is currently scheduled, as in amended Claim 1. *Fudge*'s reference to the completion of a task on an hourly, daily, weekly, or monthly schedule is in regards to the result reporting mechanism of the security audit scan, which occurs after a security audit scan has commenced. On the other hand, the central computer of amended Claim 1 determines if a scan is scheduled to be run. Therefore, *Fudge* fails to teach or suggest a central computer programmed to evaluate a database to determine if a security audit scan is currently scheduled to be run on one of the scanning machines, as set out in amended Claim 1.

2. The *Fudge/Todd* Combination Fails to Teach or Suggest a Central Computer Programmed to Determine which of a Plurality of Scanning Machines is Available to Perform a Security Audit Scan

The *Fudge/Todd* combination fails to teach or suggest an apparatus for auditing security having a central computer programmed to determine which of the plurality of scanning machines is available to perform the security audit scan, as set out in amended Claim 1. Each scanning machine of Claim 1, as amended, is capable of conducting multiple types of security assessments. Availability of the scanning machines is determined by examining a schedule for each scanning machine to identify certain scanning machines that are conducting another security audit scan or are scheduled to conduct another security audit scan. The available scanning machines include all of the plurality of scanning machines except for the certain scanning machines.

The Examiner admits that *Fudge* does not teach a plurality of scanning machines. *Office Action* at 4. However, the Examiner asserts that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to duplicate the single scanning machine of *Fudge*." *Id.* The Examiner further asserts that it would be "obvious to choose one of the plurality of scanning machines based on location or services provided, such as a variety of attacks offered on [the scanning machine]." *Id.* The step of determining which of the plurality

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of scanning machines is available to perform the security audit scan in Claim 1, as amended, does not satisfy either of the reasons set forth by the Examiner for being obvious to one of ordinary skill in the art at the time of the invention.

First, the plurality scanning machines of amended Claim 1 are each individually capable of conducting multiple types of security assessments. Since each scanning machine is capable of conducting multiple types of security assessments in amended Claim 1, it would be unnecessary for the central computer to select a scanning machine based on the security assessments that a particular scanning machine provides. Further, the central computer of amended Claim 1 determines the available scanning machines by identifying certain scanning machines that are conducting a security audit scan or are scheduled to conduct another security audit scan. The available scanning machines comprise all of the of the scanning machines except for the certain scanning machines. In contrast to the cited prior art references, amended Claim 1 does not require determining the availability of scanning machines based on distance between the scanning machine and the remote computer system. Therefore, the *Fudge/Todd* combination fails to teach or suggest an apparatus for auditing security having a central computer programmed to determine which of the plurality of scanning machines is available to perform the security audit scan as set out in amended Claim 1. Accordingly, reconsideration and withdrawal of this rejection of amended Claim 1 is respectfully requested.

B. Independent Claim 10, as Amended is Distinguishable from *Fudge*

The rejection of independent Claim 10 is respectfully traversed. It is respectfully submitted that *Fudge* fails to teach, suggest, or make obvious all of the recitations enumerated in amended Claim 10. *Fudge* fails to teach or suggest a method of conducting a security audit scan in response to a determination that the scheduled security audit scan of the remote computer system is to be executed in a predetermined period of time. Further, *Fudge* fails to teach or suggest a method of recording a scheduled security audit scan in a database.

1. *Fudge* Fails to Teach or Suggest Causing the Scanning System to Execute the Scheduled Security Audit Scan in Response to a Determination that the Scheduled Security Audit Scan is to be Executed

Fudge fails to teach or suggest a method of causing the scanning system to execute the scheduled security audit scan in response to a determination that the scheduled security audit scan is to be executed, as set-out in amended Claim 10. *Fudge* teaches conducting a vulnerability scan "upon each address profile qualified by the address filtering process during a

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filtering pass” *Fudge*, col. 4:42-44. The address filtering process sorts through available addresses on a network and determines candidates for “selective vulnerability testing.” *Fudge*, col. 3:64-66. The address filtering process is a necessary precursor of the audit scanning step in *Fudge* in order to obtain its goal of “scan[ning] a given shareable device for only those services provided by that shareable device rather than taking the time to scan for all possible services,” because such a method would “significantly reduce the time and cost involved in scanning for vulnerable devices.” *Fudge*, col. 2:19-26.

Fudge also teaches a method of conducting a security audit scan upon receipt of a new address profile or upon the notification that a new address profile exists. *Fudge*, col. 4:38-41. The address profile is a listing of all of the services detected for a particular address. *Fudge*, col. 4:35-38. The address listing is not a security audit scan. Further, the notification mechanism of *Fudge* is not a determination that the scheduled security audit scan is to be executed in a predetermined period of time. Therefore, *Fudge* fails to teach or suggest a method of causing the scanning system to execute the scheduled security audit scan in response to a determination that the scheduled security audit scan is to be executed in a predetermined period of time, as set-out in amended Claim 10.

2. *Fudge* Fails to Teach or Suggest Recording the Scheduled Security Audit Scan in a Database

Fudge fails to teach or suggest a method of recording a scheduled security audit scan in a database, as recited in amended Claim 10. The Examiner states that one of ordinary skill would use a database to trigger a vulnerability scan based on the last time a vulnerability scan was completed. *Office Action* at 5. The Examiner supports this position by pointing to the fact that *Fudge* suggests a method of performing a security audit periodically, be it hourly, daily, weekly, or monthly, and that *Fudge* discloses a notification mechanism. *Id.* at 4-5. Respectfully, the Examiner’s arguments fail for two reasons. First, as mentioned above, *Fudge*’s notification mechanism notifies a user or the scanning system that a new address profile has been introduced into the remote computer system. Second, *Fudge*’s reference to the completion of a task on an hourly, daily, weekly, or monthly schedule is in regards to the issuance of “a periodic report summarizing the progress and results of the scanning network.” *Fudge*, col. 4:61-67. Thus, while *Fudge* does allude to the use of time, it is not in reference to recording a scheduled security audit scan in a database, as recited in amended Claim 10.

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Additionally, *Fudge* teaches that the address filtering process can be initiated by a "pre-programmed or time-triggered event." *Fudge*, col. 4: 2-4. While the time-triggered event of *Fudge* may teach or suggest the scheduling of an address filtering process, it does not teach or suggest recording a scheduled security audit scan in a database. Therefore, *Fudge* fails to teach or suggest all of the recitations of amended Claim 10. Accordingly, reconsideration and withdrawal of this rejection of amended Claim 10 is respectfully requested.

C. The Inventions of Dependent Claims 2-6, 8, and 11-36 are Distinguishable from the Cited Art

The Applicant respectfully submits that the above-identified dependent claims are allowable because the independent claims from which they depend, Claims 1, 7, and 10 are patentable over the cited references. Claims 8 and 11-23 depend from independent Claim 7. Claims 24-36 depend from independent Claim 10. The Applicant also respectfully traverses the Examiner's assertions about these claims and submits that the recitations of these dependent claims are of patentable significance. The Applicant respectfully requests that the Examiner reconsider and withdraw the pending rejection of Claims 2-6, 8 and 11-36.

III. Addition of New Claims 11-46

Applicant has added new independent Claim 37 and dependent Claims 11-35 and 38-47. Applicant and the undersigned respectfully request that independent Claim 37 and the claims that depend from it, Claims 38-47 be passed to allowance. The new claims find clear support in the specification and do not contain any new matter.

IV. Claim Objection Due to Informalities

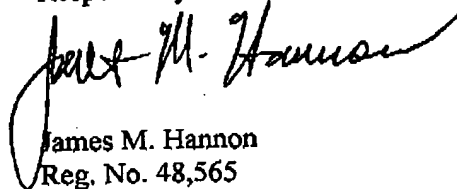
The Examiner objected to Claim 10 because it contained two steps denoted with the letter, "b". The Applicant has amended Claim 10 to eliminate the error. Therefore, the Examiner's objection to Claim 10 has been rendered moot. Accordingly, reconsideration and withdrawal of the objection to Claim 10 are respectfully requested.

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CONCLUSION

The foregoing is submitted as a full and complete response to the Official Action mailed on January 2, 2004. The Applicant has amended the claims and has submitted remarks to traverse the objections and rejections of pending Claims 1-8 and 10-47. The Applicant has shown above that Claims 1-8 and 10-47 are allowable over the art cited by the Examiner and respectfully request that the Examiner withdraw all pending rejections and/or objections to Claims 1-8 and 10-47. If the Examiner believes that there are any issues that can be resolved by a telephone conference, or that there are any informalities that can be corrected by an Examiner's amendment, a telephone call to the undersigned at (404) 572-4691 to discuss same is respectfully requested.

Respectfully submitted,



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